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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/838,933	04/20/2001	Warren Keith Edwards	PARC-DA1083	1180
22835	7590	07/26/2006	EXAMINER	
PARK, VAUGHAN & FLEMING LLP 2820 FIFTH STREET DAVIS, CA 95618-7759			GYORFI, THOMAS A	
			ART UNIT	PAPER NUMBER
			2135	

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/838,933

Applicant(s)

EDWARDS ET AL.

Examiner

Tom Gyorf

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-33 remain for examination. The correspondence filed 5/12/06 amended claims 1, 12, and 23; and cancelled claims 34-44.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/12/06 has been entered.

Response to Arguments

3. Applicant's arguments filed 5/12/06 have been fully considered but they are not persuasive. Applicant argues, *"Applicant agrees that the sharing of code in an environment where the first component and the second component have both an established communication channel and a common computing environment is obvious. However, in the case where the first and second clients do not have an established communication channel, and do not have a common computing environment, such a solution is not practical. Furthermore, such a connection is not apparent in any combination of the teachings of Kindberg, UPnP, and Waldo. A solution such as this would require that every device have a common computing environment that is both platform-independent and supportive of mobile code. While Java could possibly fill this role, it would be both expensive and impractical to implement Java, or another computing environment, on every device that you wish to communicate with. In addition, many of these devices, such as printers, typically do not have the resources to run Java, or another computing*

environment, in addition to their normal processes. Furthermore, this would imply that every device would be required to implement the same computing environment in order to ensure compatibility with all other devices. In this case, it might be easier for device designers and manufacturers to simply implement more communication mediums and communication protocols, thus defeating the purpose of the invention."

Examiner disagrees with this contention. It was known long by those of ordinary skill in the art before the instant invention that not only would it be possible to implement Java on all classes of devices each comprising various incompatibilities in their native means of communication (as an illustration, see U.S. Patent 6,003,065 to Yan et al. particularly col. 4, lines 19-36), but that doing so would actually be cost effective and practical (Yan, col. 5, lines 30-40) in contrast to Applicant's unsupported allegation above.

Although Examiner maintains that the previous combination of Kindberg, UPnP, and Waldo sufficiently reads on the claims, Examiner has amended the rejections to include Yan, as Yan discloses essentially identical technology to what was already disclosed by Waldo but also supplies additional motivation as to why one would combine those teachings with that of the other cited references.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1, 12, and 23 recite a limitation wherein "the second component and the first component do not share a standard communication protocol", for which Applicant has cited paragraph 0051, among others, as support for this limitation. However, paragraph 0051 contradicts the claims as written (as well as paragraphs 0023 and 0032 of the instant specification) by stating that as part of the discovery process the components necessarily use a standard communications protocol (such as found in Bluetooth, UDDI, or Jini [the same technology disclosed in the Waldo reference]) in order to communicate the information necessary for establishing a universal interface. Although the specific information that can be conveyed using any of those protocols may be limited in nature, they are nevertheless "standard communication protocols" as recited in the claims and as would be understood by those of ordinary skill in the art using the broadest art-specific definition of the term. Claims 2-11, 13-22, and 24-33 stand rejected by virtue of their dependency on claims 1, 12, and 23, respectively.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over "A Web-Based Nomadic Computing System", by Kindberg et al. (hereinafter, "Kindberg"), and further in view of "UpnP Device Architecture" published by the UpnP Forum

(hereinafter, "UPnP") and further in view of "The JINI Architecture for Network-Centric Computing", by Jim Waldo (hereinafter, "Waldo") and Yan et al. (U.S. Patent 6,003,065)

Referring to Claims 1, 12, 23:

Kindberg discloses a system for enabling one or more arbitrary components to communicate with each other (page 1, Abstract, lines 1-5), the system comprising: a first component associated with one or more universal interfaces (page 6, Place Managers, lines 6-13);

Kindberg does not appear to disclose "a second component obtaining one of the one or more universal interfaces associated with the first component wherein the second component includes a discovery mechanism configured to discover the first component wherein the second component invokes at least one of the universal interfaces to communicate with the first component." However, UPnP teaches these limitation (pages 13-15, "2. Description"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow multiple arbitrary components to communicate with each other using a universal interface as disclosed in UPnP. The motivation for doing so would be to exchange data in a manner that does not require the devices to possess a priori knowledge of how each component operates, but instead use common and well known technologies to enable communication between said components (page 1, "What is UPnP?").

As noted by Applicant, UPnP teaches the use of textual interface descriptions that are not in and of themselves executable code. Kindberg does not appear to

Art Unit: 2135

remedy this situation. However, Waldo and Yan disclose a universal interface comprising both executable code and data (Waldo, page 2, 2nd paragraph; page 3, "Jini and Java"; Yan: col. 5, lines 63-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include executable [Java] code into the universal interface system of Kindberg and UPnP. The motivation for doing so would be that it would allow objects, features, forms, & interfaces already available on to the operating system, to be available to the second client via code mobility (Waldo: page 3, "Jini and Java": lines 1-10) in a cost-effective fashion (Yan, col. 5, lines 30-40).

Referring to Claim 2, 13, 24:

Kindberg, UPnP, Yan and Waldo disclose the limitations of Claims 1, 12, 23 and 34 above. Kindberg further discloses wherein the first component transfers a data object to the second component, the data object having the one or more universal interfaces (page 9, Setting options on the sink, lines 15-18).

Referring to Claims 3, 14, 25 and 36:

Kindberg, UPnP, Yan and Waldo disclose the limitations of Claims 1, 12, 23 and 34 above. Kindberg further discloses the first component transfers a data object to the second component, the data object having instructions and data for accessing the one or more universal interfaces (page 7, Physical registration: defining a place: lines, 1-5; page 9, Setting options on the sink, lines 15-18).

Referring to Claims 4, 15, 26:

Kindberg, UPnP, Yan and Waldo disclose the limitations of Claims 1, 12, 23 and 34 above. Kindberg further discloses the second component has instructions and data for accessing a data object, the data object having the one or more universal interfaces (page 8, Direct content post: lines 10-19).

Referring to Claims 5, 16, 27:

Kindberg, UPnP, Yan and Waldo disclose the limitations of Claims 1, 12, 23 and 34 above. Waldo further discloses the second component interacts with an operating system environment, the operating system environment having instructions and data for accessing a data object having the one or more universal interfaces (page 2, "A simple set of Conventions": lines 1-20).

Referring to Claims 6, 17, 28:

Kindberg, UPnP, Yan and Waldo disclose the limitations of Claims 1, 12, 23 and 34 above. Kindberg further discloses the second component has instructions and data for using; the one or more universal interfaces (page 8, Direct content post: lines 10-19).

Referring to Claims 7, 18, 29:

Kindberg, UPnP, Yan and Waldo disclose the limitations of Claims 1, 12, 23 and 34 above. Kindberg further discloses a third component transfers a data object to the

second component, the data object having the one or more universal interfaces associated with the first component (Fig. 5B; page 8, Indirect content post: lines 8-15).

Referring to Claims 8, 19, 30:

Kindberg, UPnP, Yan and Waldo disclose the limitations of Claims 1, 12, 23 and 34 above. Kindberg further discloses the one or more universal interfaces comprise a data source interface, a data sink interface, an aggregation interface, a mutable aggregation interface, a context interface, a notification interface or a user interface (page 9, Setting options on the sink: lines 10-18).

Referring to Claims 9, 20, 31:

Kindberg, UPnP, Yan and Waldo disclose the limitations of Claims 1, 12, 23 and 34 above. Kindberg discloses providing one or more user interfaces to allow one or more components to be accessed or manipulated, allowing one or more components to provide event notifications or retrieving contextual data associated with the second component (page 4, Content and Physical discovery: lines 5-10; page 8, Context Exchange: lines 1-5), and Waldo discloses the one or more universal interfaces comprise object-oriented mobile code having instructions for obtaining, interpreting, viewing or modifying data associated with one or more collections of components (page 3: "Jini and Java": lines 3-20).

Art Unit: 2135

Referring to Claims 10, 21, 32:

Kindberg, UPnP, Yan and Waldo disclose the limitations of Claims 1, 12, 23 and 34 above. Kindberg further discloses one of the one or more universal interfaces comprise a source-specific data transfer session having instructions for converting data transferred through the source-specific data transfer session (page 8, Direct content post: lines 10-19).

Referring to Claims 11, 22, 33:

Kindberg, UPnP, Yan and Waldo disclose the limitations of Claims 1, 12, 23 and 34 above. Kindberg further discloses the one or more arbitrary components comprise a computer system, device, network service, application, data, memory, file directory or individual file (Fig 2; page 2, Nomadic computing model: lines 10-12).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- U.S. Patent 6,628,413 to Lee, disclosing a Java printer, which in at least one embodiment comprises an embedded Java processor (col. 3, lines 60-67).
- Art-specific dictionary definition of "protocol" (in particular, the one supplied by the Free Online Dictionary of Computing)


- "Java Chips: The Hardware Solution" ©1998 Byte.com
- "SUN plans new Java Processor" ©1999 Hoise-NM Consortium

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Gyorfi whose telephone number is (571) 272-3849. The examiner can normally be reached on 8:30am - 5:00pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TAG
7/20/06


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